

INTERNATIONAL SEARCH REPORT

Int Application No
PCT/EP 03/50786

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B01J35/02 B01J32/00 C10G47/12 C07C1/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01J C10G C07C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 517 077 A (CLEMENTS PORTER) 14 May 1985 (1985-05-14) claims; figure 2	1, 3-13, 15
P, X	WO 03 013725 A (MESTERS CAROLUS MATTHIAS ANNA ; VAN HASSELT BASTIAAN WILLEM (NL); S) 20 February 2003 (2003-02-20) figure 1	1
X	US 3 764 565 A (JACOBS R ET AL) 9 October 1973 (1973-10-09) claims; figure 4B	1-13, 15
X	US 4 645 754 A (SAOTOME MINORU ET AL) 24 February 1987 (1987-02-24) figure 6	1-7, 11-13

	--- -/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *A* document member of the same patent family

Date of the actual completion of the international search

16 March 2004

Date of mailing of the international search report

30/03/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3018

Authorized officer

Schwaller, J-M

INTERNATIONAL SEARCH REPORT

Int

I Application No

PLI/EP 03/50786

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 33 15 105 A (LEUNA WERKE VEB) 17 November 1983 (1983-11-17) figures -----	1-13,15

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/50786

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4517077	A	14-05-1985	US 4495307 A	22-01-1985
			CA 1212370 A1	07-10-1986
			DE 3440669 A1	23-05-1985
			FR 2559680 A1	23-08-1985
			GB 2149681 A	19-06-1985
			IT 1177796 B	26-08-1987
			JP 60106536 A	12-06-1985
WO 03013725	A	20-02-2003	WO 03013725 A1	20-02-2003
US 3764565	A	09-10-1973	US 3674680 A	04-07-1972
US 4645754	A	24-02-1987	EP 0218766 A1	22-04-1987
			JP 1779551 C	13-08-1993
			JP 4068974 B	04-11-1992
			JP 60216844 A	30-10-1985
			DE 3563172 D1	14-07-1988
			CN 85109109 A ,B	15-04-1987
DE 3315105	A	17-11-1983	DD 218736 A3	13-02-1985
			BG 47826 A1	15-10-1990
			DE 3315105 A1	17-11-1983
			SU 1321460 A1	07-07-1987